

Predicting Entropy change

1) Predict the entropy change for each of the following reactions by stating whether the entropy will increase OR decrease. Give a reason for each answer.

(i) Ammonium chloride solid $\text{NH}_4\text{Cl}(s)$ dissolves in water to form $\text{NH}_4^+(aq)$ and $\text{Cl}^-(aq)$.

(ii) $3\text{O}_2(g) \rightarrow 2\text{O}_3(g)$

(iii) $\text{N}_2\text{O}_4(g) \rightarrow 2\text{NO}_2(g)$